to install microcomputers in the local agriculture commission's offices so that clerks will key the information directly into the computer. Besides saving on the expense of having manual data key punched later, this proposed system should reduce the amount of errors in data entry by programming the computer to give an error message if a clerk enters coordinates that are not in California.

The California pesticide program is also expected eventually to collect this information to assist in registration of pesticides. The state and the local agricultural commissioner determine which pesticides may be used in which areas. For example, aldicarb is allowed to be used in all except one county in California. They hope to screen out pesticides that may pose a problem in certain areas. The models require information on the chemical characteristics of the pesticide (water solubility, solids absorption, and half-life, for example) as well as information on the soil type, precipitation pattern, and irrigation.

Suffolk County, Long Island Suffolk County has developed an innovative and simple system of coding data for entry into a computer. Federal funds from the Department of Housing and Urban Development (HUD) were used to code existing data according to census geography GEO codes. Data can be retrieved by street address, census area, town, or other political subdivision. These data can be used by simple reference to code maps on file at the county. This eliminates the extra step of converting a location to latitude/longitude coordinates, which is required to use the USGS WATSTOR data base. Suffolk County's system is simpler and more accurate and provides more flexibility in data retrieval. The data base is maintained on a System 2000 Time Sharing Network maintained by the State University of New York at Stony Brook.

Caution must be used in attempting to estimate the magnitude of the temporal trend of a contamination problem by analyzing data that were collected ad hoc. For example, private well data can provide valuable information but may display a statistical bias. Residents tend to have their water analyzed if they suspect they have a problem or if they have heard that their neighbor has a problem. This is offset to a minor degree by the requirement that every new well must be analyzed prior to occupancy. An additional problem is that each analysis is likely to generate a single data point. Few wells are resampled. Thus, this kind of data base must be used with caution to monitor changes in water quality over time. The maintenance of fixed monitoring points for periodic analysis in conjunction with such a local program is necessary for true temporal analysis of water quality changes.

Kansas A major shortcoming in Kansas water data is the lack of accurate and current information on water use. Data for municipal and industrial